The City of Austin FY 2021 Budget Survey

Report

1 Introduction

This budgeting survey was collaboratively designed by the City of Austin Budget Office and the Stanford Crowdsourced Democracy Team. The purpose was to gain constructive insights into the budgeting preferences of residents of Austin as input for the FY2021 budget process.

The survey was first published on May 1 with an anticipated end date of May 31, and then extended due to popular demand into June. It was designed before the impact of the COVID-19 crisis became apparent, and the increased attention for the Black Lives Matter movement in May. Some minor changes were made to the timeline and introduction in light of the COVID-19 crisis.

1.1 Survey design

The survey consisted of three sections: Revenue, Expenditure and Demographics. This report describes all responses that submitted the relevant sections, unless noted otherwise.

In the revenue section, the survey introduces the participants to the different revenue sources for the City's General Fund. Participants were asked how they felt about increasing the different sources. First, they were asked about increasing the property taxes and then for the various categories of User Fees whether they were willing to support a moderate or significant increase.

In the expenditure section, participants were presented with the current allocation of the General Fund, and were asked to adjust the allocation to reflect their priorities. They could reduce any department up to 5% or increase it with unlimited amounts, but had to balance their overall budget allocation: if they increased the allocation for some departments, they had to balance that by decreasing the allocation for other departments.

Finally, the demographics section of the survey inquires about the demographic background of the participants, which allows us to better understand how representative the survey responses are, and to analyze responses in more detail.

2 Demographics

The survey was completed and submitted by 37,006 respondents. 61,250 people started the survey, 48,828 answered the revenue section, 41,638 completed both budget sections and 37,006 people completed the demographics section. For the purpose of this report, we consider all responses where the relevant section was submitted. When we break down or discuss demographics, we only consider responses where the corresponding question(s) in the demographic section was submitted.

We observe a steep increase of the number of responses on May 31 (see Figure 1), which coincided with an increased activity in the Black Lives Matter movement and calls for reducing police funding in general. Before this, the average number of survey submissions per day was 40, and between May 31 and Jun 10 the average number of submissions per day was 3368. The average daily survey submissions after Jun 10 was 98.

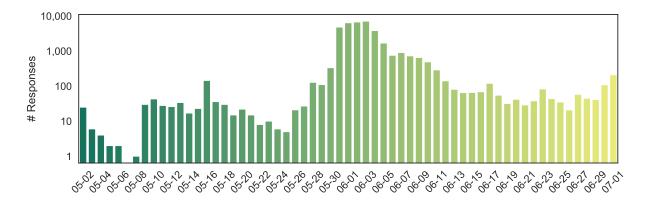


Figure 1: Responses by Date (logarithmic scale, to represent the 100-fold increase in responses)

In the design of the survey, we had to find a balance between accessibility and validating individual participants. At request of the city, emphasis was placed on accessibility. To ensure validity of the survey, we analyzed the spike in submissions. Participants were welcomed on a landing page were unable to continue without verifying being human through a reCAPTCHA feature and certifying that they lived in the City of Austin, and would only participate once. We analyzed this further in appendix D. Our conclusion is that while there may be significant participation from people not living in Austin, a large majority of participants is based in Austin, and the trends are unlikely to be affected by voters that were out of town.

In appendix A, we show the various demographics of the respondents, and how these compare with the actual makeup of the city.¹ We observe a relatively high participation from the age group 18-34 and an under representation from residents over 45 and under 18 years old. We also observe relatively low participation from men, Hispanics and African Americans. There seems a slight over representation from residents who rent their home.

We will generally provide three sets of results: the first is the results directly from the responses, the second is adjusted for race/ethnic origin² participation and the third is adjusted for age³: responses from groups with low participation are weighed up. The adjusted versions are included in the appendix for reference.

¹As defined in the American Community Survey 2018 (ACS), reported by the US Census Bureau.

²For this adjustment, the collapsed groups 'White alone', 'Hispanic', 'Asian alone', 'Black alone' and 'Other/multiple' were used.

 $^{^3}$ For this adjustment, the collapsed age groups < 25, 25 - 35, 35 - 55 and 55+ were used.

3 Revenue

First, we asked participants about their support for a property tax increase. Overall, 49% of the respondents support a property tax increase, while 35% opposed it (Figure 2). We did not investigate the level of the increase they would support.

No 35.3% 48.7% Yes

Willing To Support Property Tax Increase?

Figure 2: Property Tax Rate Increase, n=48,828.

No Opinion

Next, we asked for which service areas they would support a moderate or significant increase of the fees. We present in Figure 3 the level of support for a moderate and significant increase for each of these services, where a darker color indicates stronger support. We observe that especially for the EMS Transport Fees there is a strong preference to make no increase in fees, while there is a strong support to increase the Golf Fees and in a lesser extent the Fire Permit & Inspection Fees and the Planning and Zoning Fees.

In appendix B, we also include the demographics-adjusted levels of support. We observe less support for an increase in property tax when adjusting for age, and more support when adjusting for race/ethnic origin.

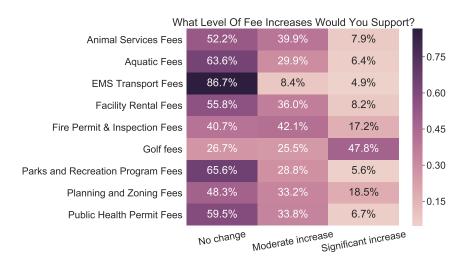


Figure 3: Fee Increases. Included all responses to the revenue section, n=48,828.

4 Expenditure

For the allocation of budget among city services, participants were asked to submit an allocation of the budget, assuming it would not change in overall size. This means practically, that the total of budget increases would have to be balanced with the same amount of decreases in allocation. We represent in Figure 4 the variation in submissions. For most services, we observe that no change in budget has the strongest support, with the exception of the Police Department. 91.6% of the respondents requested some level of reduced allocation, with 48.6% requesting the maximum permitted reduction of 5% of their current budget. 13.8% of all respondents that participated before May 30, 48.5% of all Hispanic respondents, and 46.9% of all African American respondents requested the maximum permitted reduction for the Police Department.

In order to concisely represent all the survey responses regarding expenditure, we used what is commonly known as the knapsack aggregation method. Here, we find the amount of expenditure for each category which maximizes the average agreement (in terms of Dollar amounts) with the survey respondents, subject to the fact that we neither increase nor decrease the *total* expenditure across all categories. A more detailed table is available in Appendix C.

Demographics-adjusted versions for these aggregations are available in Appendix C. This shows that also when adjusting the sampling for age bias, there is still strong support for reducing funding the police - although less so. This would have a meaningful impact on the aggregated budget based on these opinions, bringing the proposed reduction from \$ 12.50 to \$ 9.75 Million.

Department	Original Budget	Proposed Change	${\rm Change}\%$
Austin Police Department	434.48	-12.50	-2.88%
Austin Fire Department	200.70	+0.25	+0.12%
Parks and Recreation	98.39	+1.00	+1.02%
Emergency Medical Services	93.07	+2.00	+2.15%
Austin Public Health	85.93	+4.50	+5.24%
Austin Public Library	54.69	+1.25	+2.29%
Other	49.70	-	_
Municipal Court	31.51	-	_
Animal Services	15.55	+0.50	+3.22%
NHCD	14.83	+3.00	+20.23%
Planning and Zoning	9.73	_	_

Table 1: Aggregated Operating Budget (in millions of dollars), n=41,638.

5 Acknowledgements

We want to thank the tens of thousands of residents of Austin that took the time to fill out the survey, and share their preferences on the FY2021 budget.

The authors want to thank the City of Austin for the fruitful collaboration. The Budget Office, Communications and Public Information Office, and the Communications and Technology Management Office were all essential in bringing this together. Special thanks go to Katie Stewart, Tara Olson, Ted Lehr, Marion Sanchez, Adriana Villa, Kevin Romero and Ed Van Eenoo. We also want to thank Nikhil Garg and Sukolsak Sakshuwong for their input and feedback during the design of the tool.

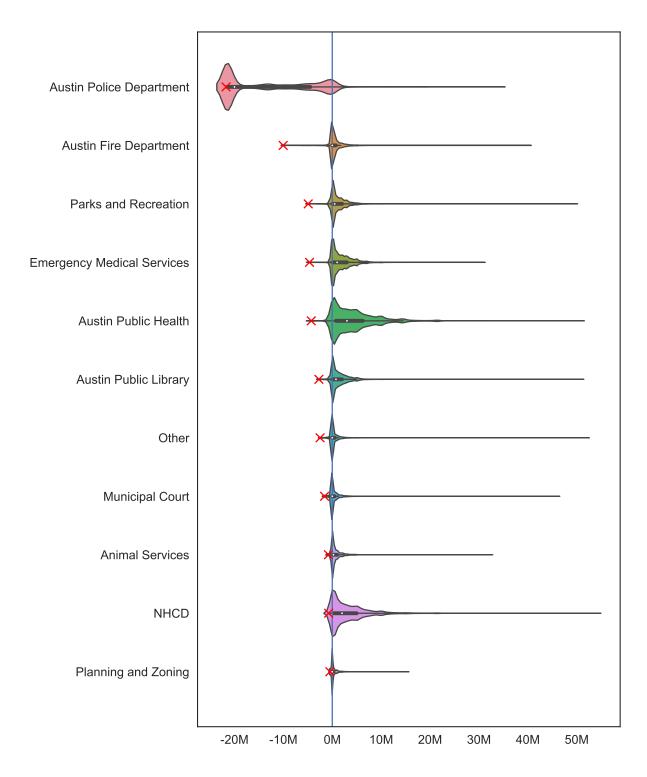


Figure 4: Distribution of Operating Budget Allocations, (n = 41,638). The horizontal bar shows the range of submitted allocation submissions, The colored region indicates which budget levels received most support. The left of the figure (negative change compared to current budget) is for each item capped at 5% (marked in red), while the added budget on the right is not capped. Departments are sorted by budget size.

Appendix: Supplementary Material

A Demographics

For analysis purposes and to preserve privacy, some demographics were collapsed into larger categories. For District, 'other' has not been reported. For gender, multiple options were collapsed under 'Other'. Note that ACS does not define genders other than 'male' and 'female'. For the full distribution of gender identities, see Table 2. For race/ethnic origin, participants were able to select all race/ethnic origin options that applied. A number of races and race/ethnicity combinations were collapsed under 'Other/multiple races' for analysis.

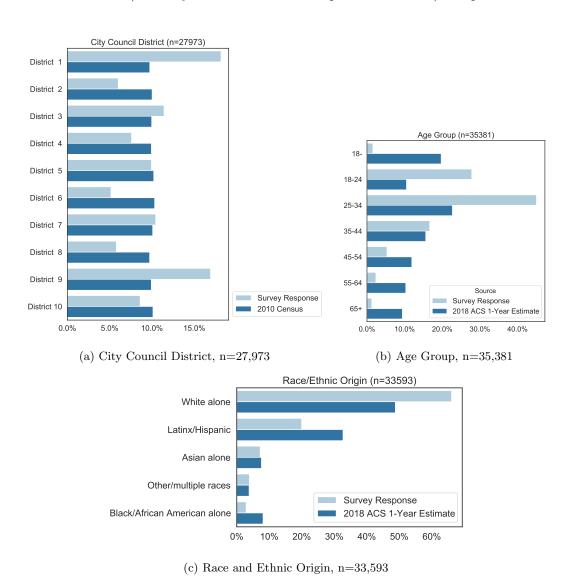


Figure 5: Demographics (percentage of sample/population)

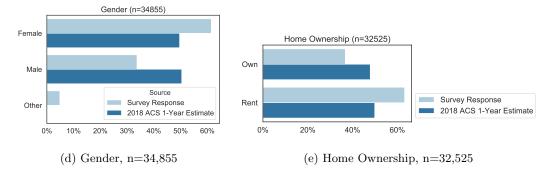
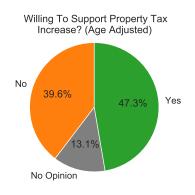


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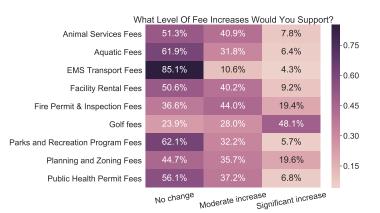
Table 2: Gender Identity of the Survey Responses vs City Population Estimate

Gender Identity	Survey Response	2018 ACS 1-Year Estimate
Women	62.45%	49.60%
Man	34.15%	50.40%
Undisclosed	4.54%	-
Genderqueer/Gender-Fluid/Non-Binary	3.29%	-
Transgender Man	0.50%	-
Transgender Woman	0.44%	-
Questioning	0.40%	-
Agender	0.35%	-

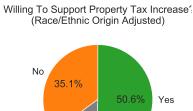
B Revenue

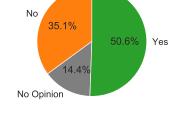


(a) Support for property tax increase, adjusted by age, n=35,381.

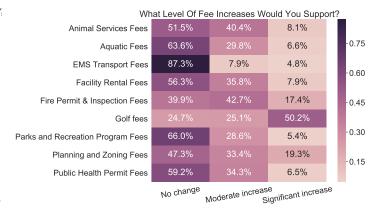


(b) Support for fee increases, adjusted by age, n=35,381.





(c) Support for property tax increase, adjusted by race/ethnic origin, n=33,593.



(d) Support for fee increases, adjusted by race/ethnic origin, n=33,593.

Figure 6: Revenue responses, adjusted by demographics

C Expenditure

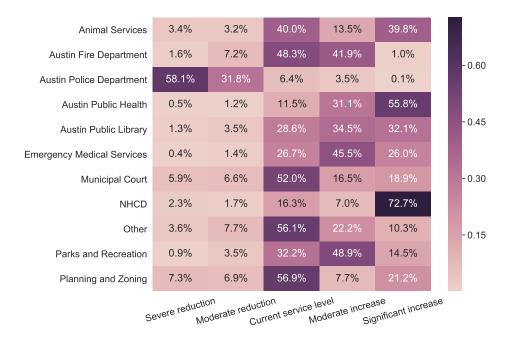


Figure 7: Allocation preferences per service. Not sample-adjusted. 'Severe'/'Significant' refers to a reduction/increase of 3% or more.

Table 3: Aggregated Operating Budget, Age Adjusted (in millions of dollars), n=35,381.

Department	Original Budget	Proposed Change	${\rm Change}\%$
Austin Police Department	434.48	-9.75	-2.24%
Austin Fire Department	200.70	+0.25	+0.12%
Parks and Recreation	98.39	+0.75	+0.76%
Emergency Medical Services	93.07	+1.25	+1.34%
Austin Public Health	85.93	+4.00	+4.66%
Austin Public Library	54.69	+1.00	+1.83%
Other	49.70	-	-
Municipal Court	31.51	-	-
Animal Services	15.55	+0.25	+1.61%
NHCD	14.83	+2.25	+15.17%
Planning and Zoning	9.73	-	-

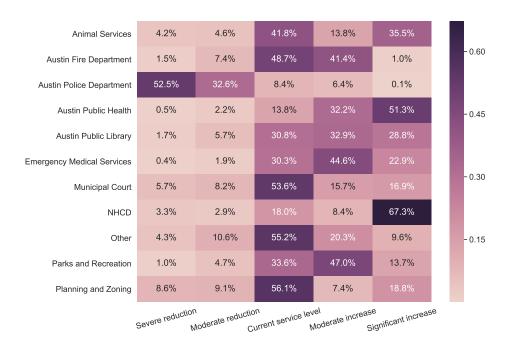


Figure 8: Allocation preferences per service: age-adjusted. 'Severe'/'Significant' refers to a reduction/increase of 3% or more.

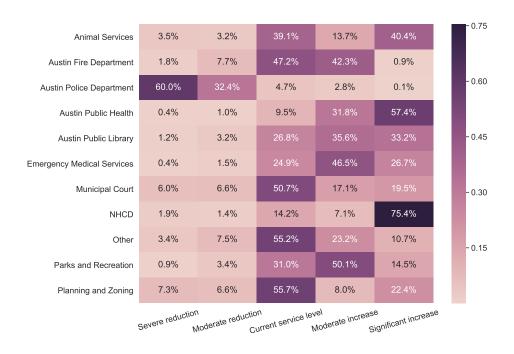


Figure 9: Allocation preferences per service: Race/Ethnic Origin-adjusted. 'Severe'/'Significant' refers to a reduction/increase of 3% or more.

Table 4: Aggregated Operating Budget, Race/Ethnic Origin Adjusted (in millions of dollars), n=33,593.

Department	Original Budget	Proposed Change	Change%
Austin Police Department	434.48	-13.00	-2.99%
Austin Fire Department	200.70	+0.25	+0.12%
Parks and Recreation	98.39	+1.00	+1.02%
Emergency Medical Services	93.07	+2.00	+2.15%
Austin Public Health	85.93	+4.75	+5.53%
Austin Public Library	54.69	+1.25	+2.29%
Other	49.70	-	_
Municipal Court	31.51	-	-
Animal Services	15.55	+0.50	+3.22%
NHCD	14.83	+3.25	+21.92%
Planning and Zoning	9.73	-	-

D Validity of responses

We analyzed the responses in a number of ways to confirm the overall validity. The open-ended questions and user agent strings give no reason for concern that there would have been automated responses.

90% of the responses entered a zip code that is associated with the City of Austin, and 3% entered a zip code that is not associated with the City (the rest did not respond with a zip code). For the responses that entered both a zip code and a district, 76% is a valid combination. There are indications that people may not have known their correct district number by heart. We did not exclude responses from the data set based on this information.

In order to check whether there were many responses from a single participant, we checked whether a large number of responses was submitted from the same IP-address and user agent. 27 addresses were used for more than 10 submissions, the highest number of submissions being 51. This may have been in good faith, such as through a shared connection. We were able to connect the most frequent IP's to large corporations and City networks in Austin, where it is likely to see multiple residents use a shared connection.

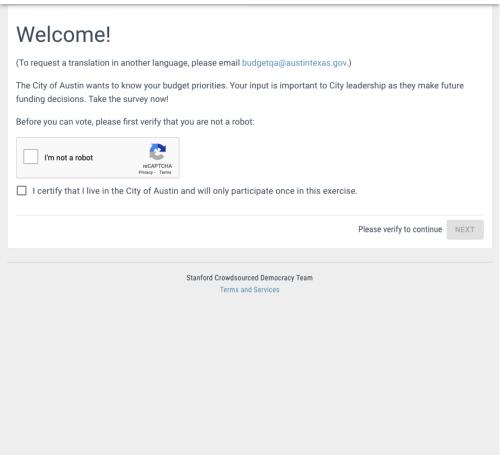
When we check the location of all IP's, we note that 70% of the submissions was mapped to the Austin metro area and 94% to Texas. IP-mapping to cities is known to vary widely in reliability, and likely contains false negatives. It seems likely there was some level of participation from outside the city.

All in all, these signals confirm that most likely all submissions were made manually, and primarily by Austin residents. For weak signals, caution should be exerted that they may not represent Austin residents.

E Screenshots

(\$) CITY OF AUSTIN | FY 2021 City Budget Feedback







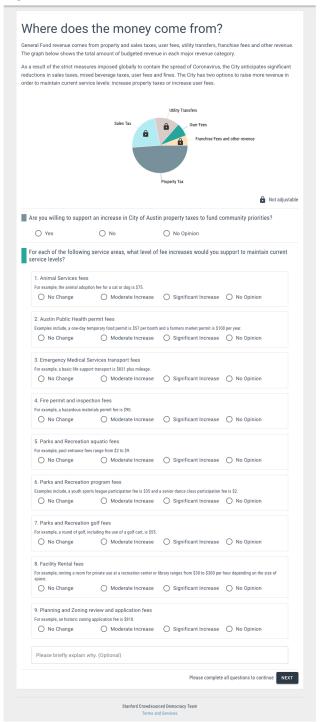


The City of Austin seeks your input as part of the annual budget development process. This exercise has two parts: managing revenues and managing expenditures. You will be asked to make decisions that best reflect your priorities for how the City raises money and how money is allocated among service areas. Feedback collected from this exercise will made available to City leadership as they make budget decisions for the fiscal year beginning October 1, 2020.

NEXT

Stanford Crowdsourced Democracy Team

Terms and Services



NEXT

